Calendar

The Michigan Aeronautics Commission has announced its regular meeting schedule for 1999. As a service to the public, all meetings will be broadcast on Michigan State Government TV (MSG-TV). Check with your local cable television company for channel and schedule information. Further details about agendas, minutes, or meeting locations may be obtained by calling the Bureau of Aeronautics at 517-335-9943.

March 16 – Lansing (joint meeting with the State Transportation Commission)
May 20 – Location to be announced
July 15 – Location to be announced
September 16 – Crystal Mountain
November 4 – Lansing

Safety Seminars

FEBRUARY

3 Houghton, Houghton High School Auditorium. 7:00-9:30 p.m. Courtesies, Customs, & Calamities of Flying at Controlled Airports, and Stalls, Spins and Other Deadly Sins. Sponsored by Harkness Love Pilots Association & MDOT Aeronautics. Call 517-335-9915.

16 Berrien Springs, Andrews University Airpark Hangar . 7:00-9:30 p.m. Weight, Balance, Stability, & Performance and Runway Incursions-WHY? Sponsored by Andrews University & MDOT Aeronautics. Call 517-335-9915.

17 Gladwin, Gladwin Zettel Memorial Airport. 6:30- 9 p.m. Program: Courtesies, Customs, & Calamities of Flying at Controlled Airports and Keeping Your Cool When Things Get Hot, Handling In-flight Emergencies. Sponsored by Gladwin Pilots Association. Call 517-335-9915.

22 Kalamazoo, Duncan Aviation . 7:00-9:30 p.m. Keeping Your Cool When Things Get Hot and Weight, Balance, Stability, & Performance. Sponsored by Duncan Aviation & MDOT Aeronautics. Call 517-335-9915.

MARCH

3 Hillsdale, Hillsdale Aero, Hillsdale Municipal Airport. 6:30-9 p.m. Program: Weight, Balance, Stability, & Performance and Runway Incursions-WHY? Sponsored by Hillsdale Aero. Call 517-335-9915.

The City of Grand Haven is accepting proposals for management services, and / or for maintenance services, and / or fixed base operations at the Grand Haven Memorial Airport. Proposals will be received at the office of the City Manager, 519 Washington Street, Grand Haven, Michigan 49417 on or before 10:00 a.m., Friday, February 19, 1999. At that time the bids will be publicly opened and read aloud in the City Hall Council Chambers. For additional information. Call Ms. Julie Bildner, Transportation Director at 616-842-3220.

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"Did you get a little zip-lock bag of screws back from your Annual?."

See page 4

COMMISSION ACTION

The Michigan Aeronautics Commission (MAC) met in Lansing on November 4, 1998. The meeting included a special ceremony at which the annual MAC awards of excellence were presented (see page 3).

In other action, commissioners approved $5.1 million for airport improvements at Michigan airports. Some projects have federal, state, and local funding, while others are funded from state and/or local sources alone. Commission approval for federally funded projects authorizes state participation, subject to issuance of a federal grant. Federal and state dollars for airport development are primarily from restricted, user generated funds. The primary sources of revenue are aviation fuel and passenger taxes, as well as aircraft registration fees.

Following projects have been approved:

GRANTS

BENTON HARBOR

Southwest Michigan Regional Airport - an allocation of $50,000 to clear a runway safety area. The proposed budget consists of $45,000 state and $5,000 local funds.

CHEBOYGAN

Cheboygan County Airport - an allocation of $40,000 for design work for a future runway extension project. The proposed budget consists of $36,000 state and $4,000 local funds.

GREENVILLE

Greenville Municipal Airport - an allocation of $45,000 for design work for a future project to extend Runway 9/27, including construction of a parallel taxiway. The proposed budget consists of $40,500 federal, $2,250 state, and $2,250 local funds.

GWINN

Sawyer Airport - an allocation of $2,545,000 for phase-three construction of a terminal building, runway grooving, installation of a VOR/DME (a ground-based navigation aid), installation of terminal apron lighting, rehabilitation of three hangars, and installation of precision approach path indicators and runway end identifier lights. The proposed budget consists of $1,843,000 federal, $77,000 state, and $625,000 local funds.

HANCOCK

Houghton County Memorial Airport - an allocation of $880,000 for phase-two construction of a sanitary sewer. The proposed budget consists of $792,000 federal, $44,000 state, and $44,000 local funds.

LAKE ISABELLA (WEIDMAN)

Lake Isabella Airpark - an allocation of $250,000 to resurface Runway 11/29. The proposed budget consists of $225,000 state, and $25,000 local funds.

MANISTEE

Manistee County-Blacker Airport - an allocation of $560,000 for phase-two construction of a new Runway 9/27, which includes converting the existing runway to a parallel taxiway. The proposed budget consists of $504,000 federal, $28,000 state, and $28,000 local funds.

MASON

Mason Jewett Field - an allocation of $60,000 to update the airport layout plan. The proposed budget consists of $54,000 state and $6,000 local funds.

PONTIAC

Oakland County International Airport - an allocation of $567,000 to rehabilitate the Runway 9R/27L parallel taxiway and to construct a crossover taxiway. The proposed budget consists of $510,300 federal and $56,700 local funds.

LOAN

GREENVILLE

Greenville Municipal Airport - a loan of $100,000 in state money to construct hangars.

Retiring State Rep. Recognized

Retiring state representative and chairman of the Legislative Aviation Caucus, Michael Nye (second from right), was recognized at the November 4th Michigan Aeronautics Commission meeting for his years of service and many contributions to aviation in Michigan. Presenting the tribute is (left to right) Commissioner John Boerema, Commissioner Ronald Seeley, and Director William Gehman.

Accident Reports

Accident Reports are reprinted from Federal Aviation Administration (FAA), National Transportation Safety Board (NTSB), or Police reports and are for information only. *Michigan Aviation* does not attest to the accuracy of these reports. We do not determine the cause of accidents; that is left to NTSB and FAA investigators.

August

6 Saginaw, Piper Apache, business flight, injuries: none; aircraft damage: minor, Wx: METAR KMBS 060454Z 11008KT 2SM BR OVC007 21/19 A3011. Accident Report: On a missed approach the pilot applied power for the climb out when the right engine caught fire. The pilot declared an emergency and landed without further incident.

16 Sommerset, Cessna 152, business flight, injuries: none; aircraft damage: substantial, Wx: METAR KJYM 161456Z AUTO 15005KT 10SM SCT018 21/18 A3011. Accident Report: The aircraft was involved in aerial photography, when the engine failed. The pilot made a forced landing on a gravel road and the nose gear collapsed.

14 DeWitt, Hiller FH-1100 helicopter, pleasure flight, injuries: fatal; aircraft damage: destroyed, Wx: METAR KLAN 141955Z 21008KT 10SM FEW050 SCT075 27/14 A2992. Accident Report: The helicopter crashed under unknown circumstances.

26 Grosse Ile, Piper Apache, training flight, injuries: none; aircraft damage: minor, Wx: METAR KONZ 260015Z 29003KT 10SM CLR 24/18 A2981. Accident Report: The aircraft landed gear up.

27 Sturgis, Cessna 210, pleasure flight, injuries: none; aircraft damage: substantial, Wx: METAR KIDS 272215Z AUTO 08005KT 10SM CLR 26/18 A3009. Accident Report: The aircraft landed gear up.

30 Alpena, Cessna 172, pleasure flight, injuries: none; aircraft damage: minor, Wx: METAR KAPN 301854Z 28008KT 260V320 10SM SCT090 23/09 A1992. Accident Report: The left brake locked up during take off, and the aircraft went off the left side of rwy 1 damaging the propeller and a wing tip.

September

5 Cadillac, Cessna 150, pleasure flight, injuries: none; aircraft damage: substantial, Wx: METAR KCAD 052100Z AUTO 25012KT 10SM CLR 29/12 A3001. Accident Report: The aircraft flipped over on landing due to a wind shift.

7 Eaton Rapids, Cessna 150, pleasure flight, injuries: none; aircraft damage: substantial, Wx: METAR KLAN 071955Z COR 35012G17KT 10SM SCT060 BKN200 24/07. Accident Report: The pilot aborted take off for unknown reasons, and the aircraft flipped over.

28 Marshall, Piper Seneca, training flight, injuries: none; aircraft damage: minor, Wx: METAR KRMY 282235Z AUTO 00000KT 10SM CLR 19/06 A3002. Accident Report: Student pilot made a poor landing and attempted to go around. The aircraft lost power in the right engine, veered right, and landed on the right side of the rwy with the gear up.

October

5 Bad Axe, Piper Cherokee, pleasure flight, injuries: fatal; aircraft damage: destroyed, Wx: METAR KBAX 051439Z AUTO 14010G15KT 10SM CLR 14/08 A3029. Accident Report: The aircraft struck an electrical pole on landing approach and crashed.

9 Flint, Cessna 182, pleasure flight, injuries: none; aircraft damage: unknown, Wx: METAR KFNT 091050Z 34004KT 8SM MIFG CLR 04/04 A3026. Accident Report: The aircraft crashed into trees at the end of the rwy.

9 Howell, Piper PA-44, training flight, injuries: fatal; aircraft damage: destroyed, Wx: METAR KOZW 091920Z AUTO 02006KT 10SM BKN040 16/06 A3018. Accident Report: Aircraft crashed while attempting to go around with the number 2 engine out. Other circumstances are unknown.

24 Muskegon, Cessna 150, type of flight unknown, injuries: none; aircraft damage: destroyed, Wx: UNKNOWN. Accident Report: The aircraft was reported stolen on 10/04/98. It was found nose-down in the water with its tail broken in a wooded and swampy area, no one was found in or around the aircraft. Other circumstances are unknown.

30 Whitmore Lake, Cessna 152, pleasure flight, injuries: none; aircraft damage: none, Wx: METAR KOZW 301900Z AUTO 05003KT 10SM OVC031 12/12 A300. Accident Report: The Aircraft made a forced landing due to fuel exhaustion.

November

25 Traverse City, Piper Comanche, type of flight unknown, injuries: none; aircraft damage: substantial, Wx: METAR TVC 252126Z VRB03KT 10SM FEW037 BKN095 OVC170 07/03 A2. Accident Report: Aircraft's landing gear collapsed after touchdown.

December

5 Waterford, Piper Navajo, business flight, injuries: fatal; aircraft damage: destroyed, Wx: METAR KPTK 050153Z 09008KT 1/2SM FG OVC001 13/13 A3000. Accident Report: The aircraft crashed 1/4 mile SW of the Oakland County airport while on ILS approach to rwy 9R. The aircraft had made 2 previous missed approaches at the Oakland-Troy airport before diverting to the Oakland County airport.

Aviation In-formation

Former Tuskegee airman, Lieutenant General Benjamin Oliver Davis Jr., was recently awarded a fourth star by President Clinton, promoting him to the grade of General, United States Air Force (retired). A graduate of West Point, Davis was one of the first members of the all-black 99th Pursuit Squadron created by the Army Air Corps at Tuskegee Institute in Alabama in 1941. He went on to command the famous all-black 332nd Fighter Group, which never lost a bomber to enemy fighters during 200 escort missions in Europe during World War II. General Davis is the namesake of B.O. Davis Aerospace Technical High School in Detroit.

In related news, B.O. Davis High School Principal, Dr. Alsce Johnson, has announced that the school has acquired a new Cessna 172 for use in its pilot training program. Davis Aerospace Technical High School, which has a student body of 278 students, offers Federal Aviation Administration (FAA) approved curricula in aviation maintenance and avionics. Additionally, selected students have the opportunity to participate in a "learn-to-fly" program, during which they can earn a private pilot license while attending school. According to Dr. Johnson, there is a great demand for students graduating from programs like Davis', due to an industry-wide shortage. Beginning in the fall of 1999, Davis will offer evening classes in aviation maintenance for individuals age 16 and older. The school also offers a post-graduate program leading to FAA airframe and powerplant certification. For additional information, or to arrange a tour, contact the school at 313-866-5401.

Improvement projects at three Michigan Airports have received special recognition from the Michigan Asphalt Paving Association (MAPA). At the W.K. Kellogg Airport in Battle Creek, a project to rehabilitate Runway 5/23 received the MAPA's first place award in the category of *airport projects*. The 10,000 by 150 foot runway was covered with an asphalt mix that allows water to seep through the top layer, preventing hydroplaning. The $590,000 project took only two and one half weeks to complete. It was singled out for recognition of its superior ride quality and excellence in construction practices. The contractor for the Battle Creek project was Globe Construction, a division of the Thompson-McCully Company.

Also in the *airport project* category, H & D, Inc. of Petoskey received an "award of merit" for the rehabilitation and extension of Runway 9/27 at the Boyne City Airport. In just 30 days, the runway was lengthened by 200 feet, widened by 25 feet, and totally reconstructed. The $340,000 project used 6,300 tons of asphalt.

Spartan Asphalt Paving Company, also a division of the Thompson-McCully Company, received a special "Award of Excellence" for the $3.7 million project to repave Runway 10R/28L at Lansing's Capital City Airport. The project was unique because it was completed in a 59-hour, around-the-clock effort. The airport was closed to all fixed-wing traffic between 8:00 a.m. on Saturday, July 18 and Monday, July 20 while more than 300 workers completed one of the most aggressive and passenger-friendly construction projects in Michigan history.

These awards were given during the annual MAPA holiday banquet on December 3, 1998. The MAPA awards, recognize superior workmanship in asphalt pavements, and have been presented to contractors, public agencies, private customers, and consulting engineers since 1977. MAPA is a statewide trade association of paving contractors and suppliers of asphalt paving materials.

The FAA has changed many of the aircraft type designators to be used by pilots when filing flight plans. These changes have been implemented to give air traffic controllers additional information about an aircraft's performance. For example, Piper PA28s are now designated P28A for lower performance models (Warrior, Archer, and Cadet) or P28B for Dakota, Charger, and other higher performing models. Additionally, the changes are part of an ongoing effort to standardize the exchange of data with other countries. A complete list of all type designators is available on the Bureau of Aeronautics website (www.mdot.state.mi.us/aero/).

MAC ANNOUNCES ANNUAL AWARDS OF EXCELLENCE

The annual Michigan Aeronautics Commission (MAC) Awards of Excellence were presented on November 4, 1998 during a meeting of the Commission in Lansing. Each year, an award is given to one individual and one group in recognition of substantial, positive contributions to aviation in Michigan. This year's winners are Raymond Thompson, Pellston Regional Airport manager; and Western Michigan University, School of Aviation Sciences.

MAC director, William Gehman (l) and Commissioner Lowell Kraft (r) present Pellston airport manager, Ray Thompson with an MAC Award of Excellence.

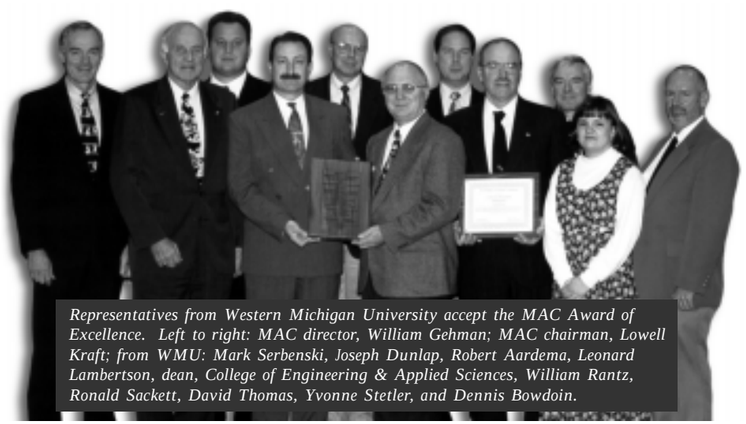
The awards were presented by MAC Commissioner Lowell Kraft and Director, William Gehman. Following the award presentation, Gehman spoke of Thompson's achievements: "Ray Thompson's contributions to the enhancement of aviation in Michigan are perhaps surpassed only by his service to his country, as an officer in the U.S. Navy."

Ray Thompson was recognized for his contributions in the development of the Pellston Regional Airport facilities, and his tireless efforts for improved air service for citizens of northern Michigan. During his tenure, the Pellston Regional Airport terminal facilities were completely modernized and improved. Improvements to both the airline terminal and the newly created Pellston Aero Center facilities were completed. The Aero Center was developed from Thompson's concept to serve the many multi-faceted users of the airport. "Ray was instrumental in developing an idea and turning it into reality. The Aero Center and the terminal facility are the front door to the community and to the state. Both are an excellent example of Ray's foresight and commitment to quality service," said William Gehman.

Thompson's commitment to air service has benefitted citizens of northern Michigan. The Pellston airport has shown passenger increases since 1985 when 30,421 passengers utilized the airport. During 1997 66,703 passengers used the facility. "Ray has been a tremendous asset to our community and the region in developing air service," said Jim Kan, chairman of Pellston's Air Service Task Force. Thompson resides in Brutus, Michigan and spent 22 years as a Naval Aviator. He served in the Atlantic, Pacific, Mediterranean, and Indian Oceans.

Accepting the award for Western Michigan University was Joseph H. Dunlap, director of the School of Aviation Sciences and Ronald Sackett, coordinator of flight instruction. Mr. Sackett, who is retiring in December, received a special citation from the MAC for his 32 years of service as an educator, flight instructor, pilot examiner, and aviation safety counselor in Michigan. "The Western Michigan University, School of Aviation Sciences is a world-class institution of higher education," said Gehman. "Its reputation for quality, innovation, and leadership in aviation education are known worldwide."

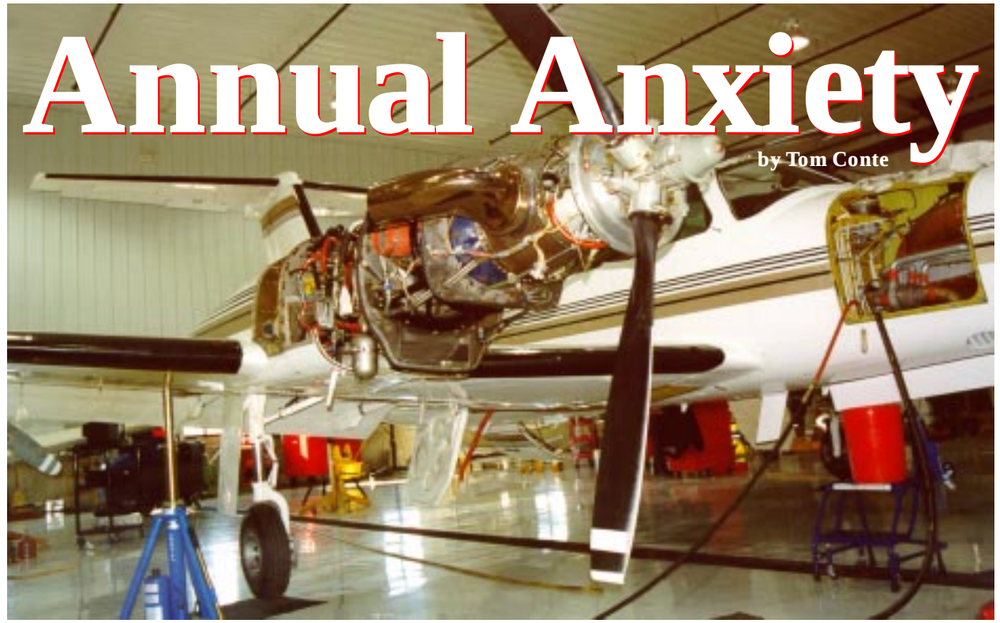
The Western Michigan University, School of Aviation Sciences was founded in 1939 as part of the war effort to train pilots and mechanics. In the past several years, however, it has undergone much growth and change, soaring into a new era. In 1997, the school completed a move from Kalamazoo to its new home at the W. K. Kellogg Airport in Battle Creek. This move coincided with the establishment of a new International Pilot Training Centre designed to train flight crew members for airlines throughout the world in the "ab-initio" method. This training is designed to prepare individuals without previous flying experience for immediate airline employment as a first officer (co-pilot). Major airline clients include British Airways, which signed a $6 million contract to bring up to 48 students each year to Battle Creek; Irish air carrier, Aer Lingus; and Emirates Airlines, the national carrier of the United Arab Emirates. As part of their commitment to train the next generation of airline crews in the latest technology, school director, Joseph H. Dunlap, announced the addition of a five week jet orientation course to the curriculum. It will be made possible by the school's decision to acquire a Boeing 737-400 simulator, which will arrive in the summer of 1999. It will be the only airline-type flight simulator in Michigan. Establishment and operation of the new facilities in Battle Creek,and the opening of the International Pilot Training Centre was a $38 million project made possible by the city of Battle Creek, $8.2 million from the W.K. Kellogg Foundation, $6 million in federal funds and $6.5 million in funds from Battle Creek's Tax Increment Finance Authority.



Representatives from Western Michigan University accept the MAC Award of Excellence. Left to right: MAC director, William Gehman; MAC chairman, Lowell Kraft; from WMU: Mark Serbenski, Joseph Dunlap, Robert Aardema, Leonard Lambertson, dean, College of Engineering & Applied Sciences, William Rantz, Ronald Sackett, David Thomas, Yvonne Stetler, and Dennis Bowdoin.

Annual Anxiety

by Tom Conte



Aircraft owners become a little uneasy at a certain time of the year. It is not around Halloween or even the 15th of April. It is the time of year when their aircraft are due for annual inspections.

This uneasiness is well-founded because horror stories abound concerning the costs of annual inspections. Stories have been told of inspections that were more expensive than the original price of the aircraft. Other rumors suggest that there is a mystical shop that will do an annual inspection for no more than the cost of an oil change. This article will examine the requirements for annual inspections and suggest some reasons for the apparent cost discrepancies.

Part 91, Subpart E, of the Federal Aviation Regulations (FARs) defines the regulatory requirements for aircraft maintenance. Section 91.409 (a) specifically requires that each aircraft be inspected annually: " … no person may operate an aircraft unless, within the preceding 12 calendar months, it has had … An annual inspection in accordance with part 43 … " Section 91.409 also defines 100 hour and progressive inspections, which are possible alternatives to the one-time-per-year "annual inspection."

How the inspection is conducted, and who is permitted to perform the maintenance, is regulated by FAR Part 43--Maintenance, Preventive Maintenance, Rebuilding, and Alteration. Appendix D of Part 43 lists the specific items that must be included in the annual inspection. The inspection items are broken down into ten parts, one for each section of the aircraft: (a) opening and cleaning the aircraft and engine, (b) the fuselage and hull group, (c) the cabin and cockpit, (d) the engine and nacelle, (e) the landing gear, (f) the wing and center section, (g) the empennage, (h) the propeller, (i) the radio group, and (j) any miscellaneous items that are not otherwise included in the list. While doing the inspection, the mechanic is required use a checklist that must include the "scope and detail" of the items contained in Appendix D. This checklist may be of the person's own design, one provided by the manufacturer of the aircraft, or one obtained from another source.

Upon completion of the Appendix D item, an Airframe and Powerplant (A & P) mechanic with an Inspection Authorization (IA) must verify the status of all previous repairs, the general condition of the engine, component specifications, and that the aircraft's paperwork is correct and current. As part of the inspection process, the IA must research all applicable Airworthiness Directives (ADs), ensure that they are complied with, and the method of compliance. Other documentation that must be inspected may include any FAA Form 337s (Major Repair or Alteration), equipment lists, operation specifications, and placards. Finally, the IA must review the aircraft's log books to determine if the aircraft meets its original certificate requirements.

Before the aircraft can be returned to service, the engine must be run to check that the power output, magnetos, fuel and oil pressure, and cylinder and oil temperature all meet the manufacturer's specifications. Only after the engine's performance is determined to be satisfactory, and all of the inspection requirements have been successfully accomplished, will the IA confirm that the aircraft is airworthy. The IA will then make the proper entries into the aircraft's logbooks, sign the entries, and return the aircraft to service.

While FAR Part 43 determines what must be accomplished during the inspection, a degree of subjectivity exists, relative to the experience and judgement of the mechanic, as to what repairs are needed immediately, and what can be deferred to a later date. The "going rate" for an annual inspection may be consistent from shop to shop, but the extent and expense of the repairs are what drives the costs to vary to such a great extent.

Many pilots naturally look for a bargain when it comes to selecting a facility to do their annual inspection. Cost alone, however, should never be the final determining factor. You, the aircraft owner, must have a certain level of confidence in the mechanic and maintenance facility doing the work, and the reassurance that your aircraft is receiving the attention to detail that is necessary.

An important factor to consider when choosing a facility is the complexity of your aircraft and the special requirements that it may have. As the complexity of the systems increase, so does the importance of a more detailed inspection. Of course, the cost of the work will increase proportionally

It's all in these books, the life line of your aircraft.

with the added complexity. Owners of high-performance, complex aircraft should consider the following items: (a) the facility must have all the manuals needed for your aircraft, (b) the mechanic must have the knowledge, desire, and time to research and analyze every system of your aircraft, (c) the mechanic must have an adequate facility in which to work (doing the work outdoors or in a private hangar may not be conducive to a thorough inspection), (d) the mechanic must have the proper tools and necessary equipment to perform a first-rate inspection, and (e) provisions must be made to dispose of the used oil, solvents, and other chemicals used during the inspection.

Regardless of the type of airplane that you own, there are several ways to reduce the costs of your annuals over time. (1) Before you make the initial purchase, search for a mechanic who has experience working on your specific make and model of aircraft, and hire this person to do the "prebuy" inspection. Many buyers insist that the "prebuy" inspection include all of the items required for an annual inspection. If this is the case, the mechanic will research all of the data available for your aircraft (ADs, FAA Form 337s, etc.). (2) After you purchase the airplane, try to have all of your maintenance done by the mechanic who did the prebuy. This person has done all of the initial research and will eventually become intimately familiar with the aircraft's maintenance history. If you must change mechanics, the new person will want to determine that the aircraft is current and legal, and will likely research all of the documents and logbooks again. By changing mechanics, you have just paid for the same service twice. (3) As an aircraft owner, strive to do preventive maintenance as often as possible. If a maintenance item is approaching questionable tolerances, replace it immediately rather than deferring it to a later time. The problem may worsen and involve other items, thereby increasing your costs.

For the mechanically inclined, the best way to save on the maintenance cost is the most enjoyable part--do some of the work yourself! If your aircraft is not used for hire, FAR Part 43, Appendix A (c)(30) allows the owner to do several preventive maintenance tasks. A more detailed description of what work can be done, and how it is to be performed, is provided in Advisory Circular 43-12A, *Preventive Maintenance.* In addition, you may assist your mechanic with the annual inspection if he or she is willing to provide the proper supervision.

Finally, no matter where you take your aircraft to be inspected, and whoever does the inspection, it is always wise to conclude that the best inspection is not always the cheapest or the quickest. As an aircraft owner, quality maintenance, with attention to detail, should always be a top priority. In addition, a well-maintained aircraft will ensure a sound return on your investment. The confident feeling of flying an aircraft, which has been well maintained, is not a bad dividend either.

Mr. Conte holds a Commercial Pilot Certificate with Single and Multi-engine, and Instrument ratings. He is also a certified Flight Instructor and an Airframe and Powerplant Mechanic.